

**REMARKS**

By this amendment, claims 1-35, 37-46 and 48-52 have been amended. Accordingly, claims 1-52 are currently pending in the application, of which claims 1, 6, 13, 20, 25, 29, 34, 43, 50 and 52 are independent claims.

In view of the above amendments and the following Remarks, Applicants respectfully request reconsideration and timely withdrawal of the pending objections and rejections for the reasons discussed below.

***Drawing Objection***

In the Office Action, the drawings were objected to as failing to show every features of the invention specified in the claims. This objection is respectfully traversed.

In this response, claim 2 has been amended to recite that the fixing unit is either (a) a plurality of *projections* formed and spaced apart from one another at a predetermined distance on the rear surface of the receiving unit, (b) *guide grooves* formed on the rear surface of the receiving unit, **OR** (c) an *adhesive tape* formed on the rear surface of the receiving unit”. It is not necessary to show both projections and guide grooves. Fig. 19 of the present application shows a plurality of guide projections 630. Thus, it is submitted that claim 2 does not render the drawings incomplete.

Claim 19 has been amended to recite “fixing unit has a height less than that of a highest one of circuit elements constituting the printed circuit board”. This feature is shown in Figs. 10 and 14 of the present application. For example, in Fig. 10, the bracket 900 has a height less than that of the highest circuit element 512 formed on the inverter board 500. Claim 42 has been

amended in a similar manner. Thus, it is submitted that claims 19 and 42 do not render the drawings incomplete.

Claim 20 has been amended to recite “a receiving unit receiving the image displaying unit and having at least one first locking structure formed on a rear surface” and “a fixing unit combined with the printed circuit board and having at least second locking structure”. These features are shown in the drawings. For example, Fig. 5 shows a mold frame 600 having locking holes 343, 344, 345, and Fig. 8 shows the second bracket 900 which is combined with the inverter board 500 and having locking holes 930, 931, 932. Claim 43 has been amended in a similar manner. Thus, it is submitted that claims 20 and 42 do not render the drawings incomplete.

Regarding claims 23 and 49, Fig. 21 shows an area of the shielding case 700 where locking holes 343a, 344a and 345a (i.e., claimed third locking unit) formed. Thus, it is submitted that claims 23 and 49 do not render the drawing incomplete.

Accordingly, Applicants respectfully request withdrawal of the drawing objection.

### ***Rejections Under 35 U.S.C. §102***

Claims 6-10 stand rejected under 35 U.S.C. §102(b) as being anticipated by U. S. Patent No. 5,986,726 issued to Murai (“Murai”). Applicants respectfully traverse this rejection for at least the following reasons.

Independent claim 6 recites “a receiving unit receiving the displaying unit”. The Examiner merely stated that the light guiding plate 7 shown in Fig. 1 of Murai corresponds to the claimed receiving unit. However, Murai does not teach or suggest that the light guide plate 7

receives the display panel 5. Thus, it is submitted that claim 6 is patentable over Murai. Claims 7-10 that are dependent from claim 6 would be also patentable at least for the same reason.

Also, it is well established that the PTO has the initial burden of establishing a *prima facie* cases of obviousness to deny patentability to the claimed invention. *In re Mayne*, 104 F. 3d 1339, 41 USPQ 2d 1451 (Fed. Cir. 1997). However, the Examiner has not pointed out where in Murai teaches or suggest that the light guiding plate 7 receives the light guide plate to support his position. Also, the Examiner has not pointed out where in Murai teaches or suggest the claimed feature of a connecting cable recited in claim 7. With respect to claim 8, the Examiner has not pointed out where in Murai teaches or suggest the claimed feature of the printed circuit board being a power supply unit or a converting unit. As to claim 9, the Examiner has not pointed out where in Murai teaches or suggest the claimed feature of a connecting cable. Also, the Examiner has not pointed out where in Murai teaches or suggest the connection opening having a closed shape, as recited in claim 10. Thus, it is submitted that the Examiner has not established a *prima facie* case of obviousness for claims 6-10.

Accordingly, Applicants respectfully request withdrawal of the 35 U.S.C. §102(b) rejection of claims 6-10.

Claims 13, 14 and 52 stand rejected under 35 U.S.C. §102(b) as being anticipated by U. S. Patent No. 5,313,318 issued to Gruenberg, et al. ("Gruenberg"). Applicants respectfully traverse this rejection for at least the following reasons.

The Examiner asserted that the light guiding pate 14 ("7" appears to be an error) corresponds to the claimed receiving means, but Gruenberg does not teach or suggest that the light guiding plate 14 receives the liquid crystal display panel 10. Thus, it is submitted that claim

13 is patentable over Gruenberg. Claim 14 that is dependent from claim 13 would be also patentable at least for the same reason.

Also, independent claim 13 recites “a fixing unit for fixing the printed circuit board to the receiving unit”. In this regard, the Examiner stated that Fig. 1 of Gruenberg teaches “fixing means (screw 9) for fixing printed circuit board ...” (Office Action, Page 4). However, Fig. 1 does not show a screw or an element designated with reference number “9”. Hence, it is not possible for Applicants to fully understand the Examiner’s rationale for the rejection.

With respect to claim 14, the Examiner has not pointed out where in Gruenberg teaches or suggest “the printed circuit board is fixed to the rear surface of the receiving unit to be placed between the receiving means and the fixing means”. Thus, it is submitted that the Examiner has not established a *prima facie* case of obviousness for claims 13 and 14.

Independent claim 52 recites “a receiving unit for receiving the displaying unit” and “a printed circuit board for controlling the displaying means and having a bottom surface located below the receiving means”.

As previously mentioned, Gruenberg does not teach or suggest that the light guiding plate 14 receives the liquid crystal display panel 10. Also, Gruenberg does not teach “a printed circuit board ... having a bottom surface located below the receiving means”. Thus, it is submitted that claim 52 is patentable over Gruenberg.

Also, the Examiner has not pointed out where in Gruenberg teaches or suggest “a printed circuit board ... having a bottom surface located below the receiving means” as recited in claim 52. Thus, it is submitted that the Examiner has not established a *prima facie* case of obviousness for claim 52.

Accordingly, Applicants respectfully request withdrawal of the 35 U.S.C. §102(b) rejection of claims 13, 14 and 52.

Claims 13-19 and 34-42 stand rejected under 35 U.S.C. §102(b) as being anticipated by Murai. Applicants respectfully traverse this rejection for at least the following reasons.

Independent claim 13 recites “a receiving unit for receiving the displaying unit” and “a fixing unit for fixing the printed circuit board to the receiving unit”.

However, as previously mentioned, Murai does not teach or suggest that the light guiding plate 7 (“14” appears to be an error) receives the LCD 5. Also, in Fig. 3 of Murai, the element 16 is a cut-out portion of the metal sheet 1 that is formed between the light guiding plate 7 and the driver circuit board 4. The cut-out portion 16 does not fix the driver circuit board 4 to the light guiding plate 7. Thus, Murai fails to disclose the claimed fixing means and receiving means. Accordingly, claim 13 is patentable over Murai. Claims 14-19 that are dependent from claim 13 would be also patentable at least for the same reason.

Independent claim 34 recites “a receiving unit receiving the displaying unit” and “a printed circuit board for controlling the displaying unit, *the printed circuit board being mounted directly on a rear surface of the receiving unit*”.

As previously mentioned, in Murai, the light guiding plate 7 does not correspond to the claimed receiving means. Also, the driver circuit board 4 is mounted directly on the isolation sheet 1 which is not the receiving unit. Murai fails to meet “the printed circuit board being mounted directly on a rear surface of the receiving unit”. Thus, claim 34 is patentable over Murai. Claims 35-42 that are dependent from claim 34 would be also patentable at least for the same reason.

Also, the Examiner has merely stated that Murai teaches the claimed features defined in claims 14-19 and 42 but has not pointed out where in Murai teaches these claimed features. Thus, it is submitted that the Examiner has not established a *prima facie* case of obviousness for claims 14-19 and 42.

Accordingly, Applicants respectfully request withdrawal of the 35 U.S.C. §102(b) rejection of claims 13-19 and 34-42.

Claims 32 and 33 stand rejected under 35 U.S.C. §102(b) as being anticipated by U. S. Patent No. 5,815,227 issued to Lee (“Lee”). Applicants respectfully traverse this rejection for at least the following reasons.

Claim 32 recites “a receiving unit receiving the lamp unit and the liquid crystal display panel” and “a plurality of *supporting members* are formed on a rear surface of the receiving unit to prevent the receiving unit from being inclined when the lamp unit is combined with the receiving unit”.

In the Office Action, the Examiner asserted that the light inducing plate 105 corresponds to the claimed receiving means. However, Lee does not disclose the light inducing plate 105 receives a liquid crystal display panel. Also, the locking protrusion “a” is formed on a surface of light inducing plate 105, which is not the claimed receiving means. Thus, Lee fails to disclose a plurality of supporting members formed on rear surface of the receiving unit.

The locking protrusion “a” and the locking hole “a” are for combining the lamp cover 125 and the light inducing plate 105. The locking protrusion is not for preventing the receiving unit from being inclined when the lamp unit is combined with the receiving unit.

It is submitted that claim 32 is patentable from Lee. Claim 33 that is dependent from claim 32 would be also patentable at least for the same reason. Accordingly, Applicants respectfully request withdrawal of the 35 U.S.C. §102(b) rejection of claims 32 and 33.

Claims 6-12 stand rejected under 35 U.S.C. §102(b) as being anticipated by U. S. Patent No. 6,256,075 issued to Yang (“Yang”). Applicants respectfully traverse this rejection for at least the following reasons.

Amended claim 6 recites “a panel driving printed circuit board formed on an side of the display unit and controlling the displaying unit” and “a printed circuit board installed on a rear surface of the receiving unit and connected to the panel driving printed circuit board”.

Yang discloses, in Fig. 2, a printed circuit board 15 directly mounted on the rear bracket 14, but fails to disclose a panel driving printed circuit board formed on an side of the LCD panel 12. It is submitted that claim 6 is patentable from Yang. Claims 7-12 that is dependent from claim 32 would be also patentable at least for the same reason.

Also, the Examiner merely stated that Yang teaches the claimed features defined in claims 7-11 but has not pointed out where in Yang actually teaches theses claimed features. Thus, it is submitted that the Examiner has not established a *prima facie* case of obviousness for claims 7-12.

Accordingly, Applicants respectfully request withdrawal of the 35 U.S.C. §102(b) rejection of claims 6-12.

Claims 20-31 and 34-49 stand rejected under 35 U.S.C. §102(e) as being anticipated by U. S. Patent No. 6,256,075 issued to Yang (“Yang”). Applicants respectfully traverse this rejection for at least the following reasons.

The Examiner stated screws (“crews” appears to be an error) corresponds to the claimed fixing means. However, the Examiner has not pointed out that how a screw can have “at least one second locking structure” and how “a locking member extends through the ... second ... locking structure” of the screw “from an outside of the shielding unit toward the display unit”. It is not possible for Applicants to fully understand the Examiner’s rationale for this rejection.

It is submitted that a screw cannot be the claimed fixing means, and Yang fails to disclose the claimed fixing means. Thus, independent claims 20 and 43 are patentable over Yang. Claims 21-24 and 44-49 that are dependent from claims 20 and 43 would be also patentable at least for the same reason.

Also, the Examiner merely stated that Yang teaches that the shielding unit and the printed circuit board are fixed to the receiving unit such that *a locking member extends through the first, second and third locking structure from an outside of the shielding unit towards the displaying unit*. However, the Examiner has not pointed out where in Yang teaches these claimed feature of claims 20 and 43. Also, the Examiner merely stated that Yang teaches the claimed features defined in claims 21-23 and 44-46 but has not pointed out where in Yang discloses these claimed features. Thus, it is submitted that the Examiner has not established a *prima facie* case of obviousness for claims 20-23 and 43-46.

Independent claim 25 recites “the shielding unit is combined with the receiving unit by laterally pushing the shielding unit along the guide groove”. This claimed feature has been neither asserted to be taught in Yang by the Examiner nor disclosed or suggested in Yang. Thus,



Claim 25 is patentable over Yang. Claims 26-28 that are dependent from claim 25 would be also patentable at least for the same reason.

Independent claim 29 recites “wherein a projection is formed on the rear surface of the receiving unit in order to prevent the panel-driving printed circuit board, which is bent on the rear surface and received in the space of the receiving unit, from departing from the rear surface of the receiving means”. Yang fails to disclose this claimed feature. Also, the Examiner has not asserted that Yang teaches this claimed feature. Thus, it is submitted that claim 29 is patentable over Yang. Claims 30 and 31 that are dependent from claim 29 would be also patentable at least for the same reason.

Accordingly, Applicants respectfully request withdrawal of the 35 U.S.C. §102(e) rejection of claims 20-31 and 34-49.

***Rejections Under 35 U.S.C. §103***

Claims 1 and 2 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Lee in view of U. S. Patent No. 5,808,708 issued to Oyama, *et al.* (“Oyama”). Applicants respectfully traverse this rejection for at least the following reasons.

As previously mentioned, in Lee, the light inducing plate 125 does not correspond to the claimed receiving unit. Also, Lee fails to disclose “a fixing unit formed on the receiving means and guiding the power supplying lines to the power supplying unit for preventing the power supplying lines from being departed from the receiving unit”. This is further evidenced by the fact that the Examiner has not pointed out where in Lee teaches or suggests this claimed feature.

The Examiner asserted the locking protrusion a and guide grooves a' correspond to the claimed projections and guide grooves, respectively. However, the locking protrusion a and the

locking hole a' are for combining the lamp cover 125 and the light inducing plate 105. The locking protrusion is not for preventing the power supplying lines from being departed from the receiving unit.

These missing features are not disclosed in Oyama. Oyama does not disclose the claimed "a fixing unit formed on the receiving means and guiding the power supplying lines to the power supplying unit for preventing the power supplying lines from being departed from the receiving unit".

Oyama shows the light source control circuit 16 mounted on the surface of the light guiding plate 4a, but the light guide plate 4a does not correspond to the claimed receiving unit. Thus, Oyama does not disclose "a power supplying unit mounted on a rear surface of the receiving unit, for supplying power to the light generating unit"

Since none of the cited references teaches or suggest the claimed fixing unit and the claimed power supply unit mounted on the rear surface of the receiving unit, it would not have been obvious to combine the teachings of Lee and Oyama to arrive at the claimed invention defined in claim 1.

Accordingly, Applicants respectfully request withdrawal of the 35 U.S.C. §103(a) rejection of claim 1. Since the none of the other prior art of record, whether taken alone or in any combination, discloses or suggests all the features of the claimed invention, Applicants respectfully submit that independent claim 1, and claim 2 that depend therefrom are allowable.

In the Office Action, Claims 1 and 3-5 stands rejected under 35 U.S.C. §103(a) as being unpatentable over U. S. Patent No. 5,966,191 issued to Lee ("Lee") in view of Oyama.

Applicants respectfully traverse this rejection for at least the following reasons.

Lee does not teach that the light guide plate 15 receives the LCD panel. Thus, the light guide plate 15 does not correspond to the claimed receiving unit. Also, Lee does not teach the claimed fixing unit. The Examiner merely stated that Lee teaches the claimed fixing unit but has not pointed out where in Lee teaches this claimed feature. Further Lee does not teach “power supplying unit *mounted on a rear surface of the receiving unit*”. As previously mentioned, Oyama fails to disclose the claimed “fixing unit” and “power supplying unit *mounted on a rear surface of the receiving unit*”.

Since none of the cited references teaches or suggest the claimed fixing unit and the claimed power supply unit mounted on the rear surface of the receiving unit, it would not have been obvious to combine the teachings of Lee and Oyama to arrive at the claimed invention defined in claim 1.

Accordingly, Applicants respectfully request withdrawal of the 35 U.S.C. §103(a) rejection of claim 1. Since the none of the other prior art of record, whether taken alone or in any combination, discloses or suggests all the features of the claimed invention, Applicants respectfully submit that independent claim 1 and claim 3-5 that depend therefrom are allowable.

In the Office Action, Claims 50-51 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Lee in view of Oyama. Applicants respectfully traverse this rejection for at least the following reasons.

Claim 50 recites “a printed circuit board for controlling the displaying unit, the printed circuit board *directly mounted on a rear surface of the receiving unit*”. The Examiner admitted that Lee fails to disclose this claimed feature. The Examiner asserted that this claimed feature is shown in Fig. 3 of Oyama.

In Fig. 3, Oyama teaches the light source control circuit 16 directly mounted on the black reflector 7. The black reflector 7 is located between the light source control circuit 16a and the light guiding plate 4a. The light guiding plate 4a does not receive the LCD panel 2, and hence does not correspond to the claimed receiving unit.

Thus, Oyama fails to disclose “a printed circuit board for controlling the displaying unit, the printed circuit board *directly mounted on a rear surface of the receiving unit*”. Since none of the applied reference teaches or suggests this claimed feature, it would not have been obvious to combine the teachings of Lee and Oyama to arrive at the claimed invention.

Accordingly, Applicants respectfully request withdrawal of the 35 U.S.C. §103(a) rejection of claim 50. Since none of the other prior art of record, whether taken alone or in any combination, discloses or suggests all the features of the claimed invention, Applicants respectfully submit that independent claim 50 and claim 51 that depend therefrom are allowable.


**CONCLUSION**

Applicants believe that a full and complete response has been made to the pending Office Action and respectfully submit that all of the stated objections and grounds for rejection have been overcome or rendered moot. Accordingly, Applicants respectfully submit that all pending claims are allowable and that the application is in condition for allowance.

Should the Examiner feel that there are any issues outstanding after consideration of this response, the Examiner is invited to contact the Applicant's undersigned representative at the number below to expedite prosecution.

Prompt and favorable consideration of this Reply is respectfully requested.

Respectfully submitted,



Hae-Chan Park  
Reg. No. 50,114

Date: July 18, 2003

**McGuireWoods LLP**  
1750 Tysons Boulevard  
Suite 1800  
McLean, VA 22102-4215  
Tel: 703-712-5365  
Fax: 703-712-5280  
HCP:WSC/kbs

COMMERCIAL\_LIT-#207463-v1-61920233aa\_AMND\_re\_NFOA\_5\_14\_2003.DOC